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NEWS 2 APR 02 CAS Registry Number Crossover Limits Increased to  
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enhanced  
NEWS 4 APR 02 DWPI: New display format ALLSTR available  
NEWS 5 APR 02 New Thesaurus Added to Derwent Databases for Smooth  
Sailing through U.S. Patent Codes  
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Coverage back to 1948  
NEWS 7 APR 07 CA/CAplus CLASS Display Streamlined with Removal of  
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NEWS 10 JUN 16 WPI First View (File WPIFV) will no longer be  
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NEWS 12 JUN 18 CAS and FIZ Karlsruhe announce plans for a new  
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NEWS 16 JUN 28 Introducing "CAS Chemistry Research Report": 40 Years  
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NEWS 17 JUN 29 Enhanced Batch Search Options in DGENE, USGENE,  
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NEWS 18 JUL 19 Enhancement of citation information in INPADOC  
databases provides new, more efficient competitor  
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NEWS 19 JUL 26 CAS coverage of global patent authorities has  
expanded to 61 with the addition of Costa Rica

NEWS EXPRESS FEBRUARY 15 10 CURRENT WINDOWS VERSION IS V8.4.2,  
AND CURRENT DISCOVER FILE IS DATED 07 JULY 2010.

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STRUCTURE FILE UPDATES: 10 AUG 2010 HIGHEST RN 1235961-81-5  
DICTIONARY FILE UPDATES: 10 AUG 2010 HIGHEST RN 1235961-81-5

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=>  
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chain nodes :  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 21 22  
chain bonds :  
1-2 1-5 2-3 3-4 3-17 5-6 5-7 6-21 7-8 8-9 9-10 10-11 11-12 12-13  
13-14 13-15 13-16 17-18 21-22  
exact/norm bonds :  
2-3 3-4 5-6 7-8 8-9 9-10  
exact bonds :  
1-2 1-5 3-17 5-7 6-21 10-11 11-12 12-13 13-14 13-15 13-16 17-18 21-22

Match level :  
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS  
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS  
18:CLASS 21:CLASS 22:CLASS

L1 STRUCTURE UPLOADED

=> s 11 sss full  
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 191.05 U.S. DOLLARS  
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y  
FULL SEARCH INITIATED 16:11:13 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 96 TO ITERATE

100.0% PROCESSED 96 ITERATIONS 47 ANSWERS  
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L2 47 SEA SSS FUL L1

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COST IN U.S. DOLLARS SINCE FILE TOTAL  
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FULL ESTIMATED COST ENTRY 191.54 191.76

FILE 'CAPLUS' ENTERED AT 16:11:22 ON 11 AUG 2010  
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FILE COVERS 1907 - 11 Aug 2010 VOL 153 ISS 7  
FILE LAST UPDATED: 10 Aug 2010 (20100810/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2010  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2010

CAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2010.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 12  
L3                24 L2

=> s 13 and (viral or virus)  
225561 VIRAL  
34 VIRALS  
225578 VIRAL  
              (VIRAL OR VIRALS)  
445621 VIRUS  
93666 VIRUSES  
462763 VIRUS  
              (VIRUS OR VIRUSES)  
L4                11 L3 AND (VIRAL OR VIRUS)

=> dup rem 14  
PROCESSING COMPLETED FOR L4  
L5                11 DUP REM L4 (0 DUPLICATES REMOVED)

=> d 15 1-11 ibib abs

L5 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 2010:409307 CAPLUS  
DOCUMENT NUMBER: 152:422252  
TITLE: Compositions and methods for treating viral infections  
INVENTOR(S): Sharma, Geeta; Altmeyer, Ralf; Pendharker, Vishal;  
Chen, Yu; Foley, Michael  
PATENT ASSIGNEE(S): Combinatorx Pte. Ltd., Singapore  
SOURCE: U.S. Pat. Appl. Publ., 38pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20100081713	A1	20100401	US 2009-406716	20090318
PRIORITY APPLN. INFO.:			US 2008-69917P	P 20080319

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The present invention provides compns., methods, and kits for treating or preventing a viral infection (e.g., an infection caused by an influenza virus). A composition comprises a selective serotonin reuptake inhibitor and an addnl. antiviral agent or a pair of agents such as an SSRI and a corticosteroid. Agents and combinations of agents have been identified which reduce inflammatory response in cells infected with an influenza virus, and further, these agents and combinations of agents have been shown to reduce mortality rates of mice infected with an influenza virus. C57/BL6 mice were orally administered treatments starting 4 h before inoculation with LDs of mouse-adapted influenza A virus. The survival rate on day 9 was 0% for vehicle-treated mice. The survival rate of mice receiving sertraline at a dose of 30 mg/kg/day was 22.2% on day 10. Mice treated with a combination of sertraline 30 mg/kg and prednisolone 0.1 mg/kg showed 30% survival on day 10.

L5 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 2006:198407 CAPLUS  
 DOCUMENT NUMBER: 144:403777  
 TITLE: Using small molecules to overcome drug resistance induced by a viral oncogene  
 AUTHOR(S): Smukste, Inese; Bhalala, Oneil; Persico, Marco; Stockwell, Brent R.  
 CORPORATE SOURCE: Department of Biological Sciences and Department of Chemistry, Fairchild Center, Columbia University, New York, NY, 10027, USA  
 SOURCE: Cancer Cell (2006), 9(2), 133-146  
 CODEN: CCAECI; ISSN: 1535-6108  
 PUBLISHER: Cell Press  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB We used small mol. screening to discover compds. and mechanisms for overcoming E6 oncogene-mediated drug resistance. Using high-throughput screening in isogenic cell lines, we identified compds. that potentiate doxorubicin's lethality in E6-expressing colon cancer cells. Such compds. included quaternary ammonium salts, protein synthesis inhibitors, 11-deoxyprostaglandins, and two addnl. classes of compds.-analogs of 1,3-bis(4-morpholinylmethyl)-2-imidazolidinethione (a thiourea) and acylated secondary amines that we named indoxins. Indoxins upregulated topoisomerase II $\alpha$ , the target of doxorubicin, thereby increasing doxorubicin lethality. We developed a photolabeling strategy to identify targets of indoxin and discovered a nuclear actin-related protein complex as a candidate indoxin target.  
 OS.CITING REF COUNT: 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)  
 REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 2005:904330 CAPLUS  
 DOCUMENT NUMBER: 143:222464  
 TITLE: Phospholipids for the treatment of infection by togaviruses, herpes viruses and coronaviruses  
 INVENTOR(S): Fleming, Ronald A.; Hes, Jan V.; Huang, Yunsheng; Read, Russ H.; Morris-Natschke, Susan L.; Ishaq, Khalid S.; Kucera, Louis S.; Furman, Phillip A.  
 PATENT ASSIGNEE(S): Kucera Pharmaceutical Company, USA  
 SOURCE: U.S. Pat. Appl. Publ., 36 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050187192	A1	20050825	US 2004-783927	20040220
PRIORITY APPLN. INFO.:			US 2004-783927	20040220

OTHER SOURCE(S): MARPAT 143:222464

AB Provided are compds., methods and pharmaceutical compns. for treating a host, especially a human, infected with a togavirus, herpes virus and/or coronavirus, and in particular SARS-CoV, cytomegalovirus or varicella-zoster virus. The method in one embodiment comprises administering to that host an effective amount of an anti-togavirus, anti-herpes virus and/or anti-coronavirus phospholipid or a pharmaceutically acceptable salt or prodrug thereof. The phospholipid

compound is, e.g., a 3-alkylamido-2-alkoxypropylphosphocholine compound or salt thereof. The compound may be administered alone or in combination and/or alternation with one or more other antiviral agents. The EC50 of an alkylamido-2-alkoxypropylphosphocholine against varicella zoster virus was 0.48 µg/mL.

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)

L5 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 2005:902611 CAPLUS  
DOCUMENT NUMBER: 143:241938  
TITLE: Methods and compositions for the treatment of respiratory syncytial virus  
INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.; Ishaq, Khalid S.; Fleming, Ronald A.; Hess, Jan V.; Huang, Yunsheng; Read, Russ H.; Furman, Phillip A.  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 29 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050187191	A1	20050825	US 2004-781894	20040220
WO 2005099719	A2	20051027	WO 2005-US3972	20050209
WO 2005099719	A3	20070322		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2004-781894 A 20040220

OTHER SOURCE(S): MARPAT 143:241938

AB The invention includes compds. useful for inhibiting RSV replication and treating a host infected with RSV. The invention also includes methods of treating a host infected with RSV by administering to the host an anti-RSV effective amount of a compound of the invention.

L5 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 1998:435743 CAPLUS  
DOCUMENT NUMBER: 129:90448  
ORIGINAL REFERENCE NO.: 129:18491a,18494a  
TITLE: Method of treating hepatitis virus infections  
INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.  
PATENT ASSIGNEE(S): Wake Forest University, USA; University of North Carolina  
SOURCE: U.S., 17 pp., Cont.-in-part of U. S. Ser. No. 74,943, abandoned.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5770584	A	19980623	US 1995-465947	19950606
US 6030960	A	20000229	US 1998-102308	19980622
PRIORITY APPLN. INFO.:			US 1993-74943	B2 19930610
			US 1995-465947	A3 19950606

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 129:90448

AB A method of treating hepatitis virus infection is disclosed. The method involves administering to a human subject in need of such treatment an effective hepatitis virus-combating amount of an alkyl lipid or alkyl lipid derivative  
OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)  
REFERENCE COUNT: 67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1998:205430 CAPLUS

DOCUMENT NUMBER: 128:316940

ORIGINAL REFERENCE NO.: 128:62637a,62640a

TITLE: In vitro evaluation and characterization of newly designed alkylamidophospholipid analogs as anti-human immunodeficiency virus type 1 agents

AUTHOR(S): Kucera, L. S.; Iyer, N.; Morris-Natschke, S. L.; Chen, S. Y.; Gumus, F.; Ishaq, K.; Herrmann, D. B. J.

CORPORATE SOURCE: Wake Forest University School Medicine, Winston-Salem, NC, USA

SOURCE: Antiviral Chemistry & Chemotherapy (1998), 9(2), 157-165

CODEN: ACCHEH; ISSN: 0956-3202

PUBLISHER: International Medical Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Our labs. first reported two novel classes of complex synthetic lipids, including alkylamidophosphocholines (PC lipid; CP-51) and alkylamidophosphate ester-linked lipid-AZT conjugates (lipid-AZT conjugates; CP-92), with selective and potent activity against human immunodeficiency virus type 1 (HIV-1). To extend these observations, we synthesized addnl. PC lipids and lipid-AZT conjugates (INK and INK-AZT conjugate) to evaluate their structure-activity relationships by testing for selectivity against infectious wild-type (wt) and drug-resistant HIV-1 replication, virus fusogenic activity and toxicity replication, virus fusogenic activity and toxicity for mouse bone marrow cells. PC lipid compds. with medium chain lengths at positions 1 and 2 gave an improved selective index (SI). INK-3, with 12 and 8 carbons and INK-15, with 10 and 12 carbons were among the most selective when evaluated in CEM-SS cells. INK-14, a lipid-AZT conjugate where AZT replaced the choline in PC lipid INK-3, gave the highest SI of >1250 against both infectious wt HIV-1 replication in CEM-SS cells and a clin. isolate in peripheral blood leukocytes. Notably, the PC lipid compds. INK-3 and INK-15, but not the lipid-AZT conjugate INK-14, were potent inhibitors of matched pairs of AZT-sensitive and AZT-resistant HIV-1 clin. isolates. INK-3 also inhibited replication of HIV-2 and TIBO-resistant HIV-1, and inhibited HIV-1-mediated fusogenic activity by 78, 41 and 9% in a dose-dependent manner. The TC50 for mouse bone marrow cells was >100 µg/mL for CP-51 and 0.142-0.259 µg/mL for AZT. These data suggest that optimum PC lipid compds. are significantly less toxic than AZT and have high potential as novel therapeutic agents for AIDS.

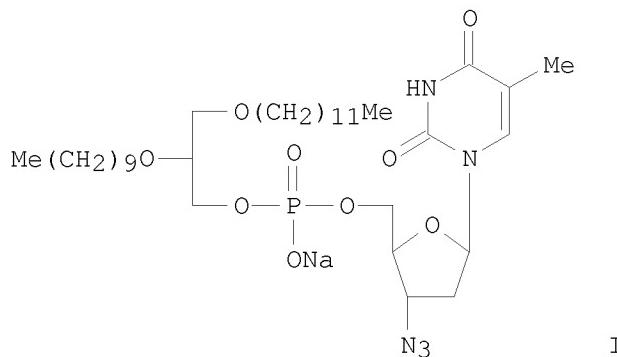
OS.CITING REF COUNT: 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS

REFERENCE COUNT: 19 RECORD (13 CITINGS)  
THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 1995:694404 CAPLUS  
DOCUMENT NUMBER: 123:160151  
ORIGINAL REFERENCE NO.: 123:28207a, 28210a  
TITLE: Membrane-interactive phospholipids inhibit HIV type  
1-induced cell fusion and surface gp160/ gp120 binding  
to monoclonal antibody  
AUTHOR(S): Krugner-Higby, Lisa; Goff, David; Edwards, Terri;  
Iyer, Nathan; Neufeld, Jay; Kute, Timothy;  
Morris-Natschke, Susan; Ishaq, Khalid; Piantadosi,  
Claude; Kucera, Louis S.  
CORPORATE SOURCE: Wake Forest University, Winston-Salem, NC, 27157-1064,  
USA  
SOURCE: AIDS Research and Human Retroviruses (1995), 11(6),  
705-12  
CODEN: ARHRE7; ISSN: 0889-2229  
PUBLISHER: Liebert  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Membrane-interactive phospholipids (PLs), previously evaluated for  
activity against HIV-1 in vitro, are known to affect late steps in  
viral replication. Studies were done to determine the effects of PL  
analogs on post-translational processing of HIV-1 proteins, binding of  
viral surface gp160/gp120 to CD4 receptor, and HIV-1-induced cell  
fusion. Results of this investigation indicated that PL alone  
(1-octadecanamido-2-ethoxypropyl-rac-3-phosphocholine, CP-51) and PL-AZT  
conjugate (1-octadecanamido-2-ethoxypropyl-rac-3-phospho-3'-azido-3'-  
deoxythymidine, CP-92) have no effect on HIV-1-induced syntheses or  
processing of gp160/gp120, pr51, p24, or p17 (including myristylation) in  
infected cells. Progeny HIV-1 particles made in CP-92-treated H9IIIB  
cells contained gp120, pr51, and p24; however, these virus  
particles had reduced capacity to bind to CD4+ cells. Both CP-51 and  
CP-92 inhibited syncytium (cell fusion) formation between treated  
HIV-1-infected cells and uninfected CD4+ cells, and, they reduced HIV-1  
gp160/gp120 binding to CD4+ cells and monoclonal antibody. These results  
suggest that anti-HIV-1 activity of PL compds. involves alteration of cell  
surface membranes and viral envelopes. Phospholipid compds. are  
a novel class of membrane interactive compds. with potential use in  
blocking the spread of HIV-1 infection and pathogenesis in AIDS.  
OS.CITING REF COUNT: 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS  
RECORD (14 CITINGS)

L5 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 1995:701769 CAPLUS  
DOCUMENT NUMBER: 123:112632  
ORIGINAL REFERENCE NO.: 123:20141a, 20144a  
TITLE: Phospholipids for combating hepatitis B virus  
infection  
INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.  
PATENT ASSIGNEE(S): Wake Forest University, USA; University of North  
Carolina  
SOURCE: PCT Int. Appl., 38 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9428908	A2	19941222	WO 1994-US5855	19940525
WO 9428908	A3	19950323		
W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KG, KP, KR, KZ, LK, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2164717	A1	19941222	CA 1994-2164717	19940525
CA 2164717	C	20091020		
AU 9470448	A	19950103	AU 1994-70448	19940525
EP 702556	A1	19960327	EP 1994-919231	19940525
EP 702556	B1	20021023		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
AT 226437	T	20021115	AT 1994-919231	19940525
PRIORITY APPLN. INFO.:			US 1993-74943	A 19930610
			WO 1994-US5855	W 19940525
OTHER SOURCE(S):	MARPAT 123:112632			
GI				

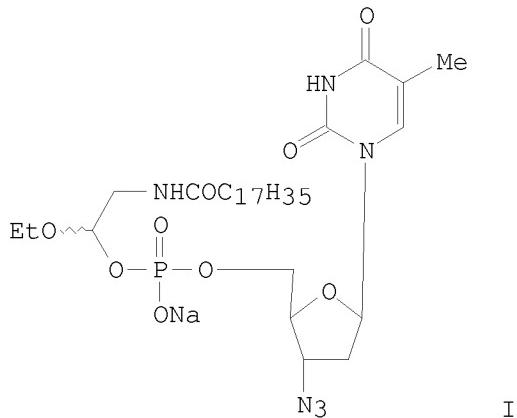


AB A method of treating infection with hepatitis B virus is disclosed. The method comprises administration of alkyl ether phospholipids and derivs. of formula DCH<sub>2</sub>XCH<sub>2</sub>YR<sub>1</sub> [Y = S, O, NH, NMe, NHCO, NMeCO; R<sub>1</sub> = (un)branched (un)saturated C<sub>10</sub>-20 alk(en/yn)yl; X = bond, CH<sub>2</sub> (un)substituted by OH, alkyl, alkoxy, or alkylthio; D = (PO<sub>4</sub>)<sub>n</sub>E, N+R<sub>5</sub>R<sub>6</sub>FW<sup>Z-</sup>; E = (mono/di/trialkyl)ammonioalkyl or a nucleic acid base conjugate; F = alkylene; R<sub>5</sub>, R<sub>6</sub> = H, alkyl; W = OH, SH; Z- = anion]. Several compds. were prepared. For example, etherification of isopropylideneglycerol with 1-bromododecane using KOH in PhMe and acid hydrolysis with HCl in MeOH-Et<sub>2</sub>O mixture gave 71% 3-dodecyloxy-1,2-propanediol. This underwent 1-O-tritylation with Ph<sub>3</sub>CCl in pyridine, 2-O-alkylation by 1-bromodecane and NaH in THF (51%), and detritylation by p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H in CHCl<sub>3</sub>-MeOH (63%) to give 3-dodecyloxy-2-decyloxy-1-propanol. The latter underwent esterification with (PhO)<sub>2</sub>P(O)Cl (60%), hydrogenolysis of the Ph ester to the phosphatidic acid, and reesterification with AZT using DCC (22%) to give title compound (Na salt) I. Another compound, ( $\pm$ )-3-octadecanamido-2-ethoxypropyl-1-phosphocholine, inhibited HBV virion DNA and intracellular RI HBV DNA in expts. to a comparable or greater extent than the standard agent ddC.

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1991:185901 CAPLUS  
 DOCUMENT NUMBER: 114:185901  
 ORIGINAL REFERENCE NO.: 114:31415a,31418a  
 TITLE: Synthesis and evaluation of novel ether lipid nucleoside conjugates for anti-HIV-1 activity  
 AUTHOR(S): Piantadosi, Claude; Marasco, Canio J., Jr.; Morris-Natschke, Susan L.; Meyer, Karen L.; Gumus, Fatma; Surles, Jefferson R.; Ishaq, Khalid S.; Kucera, Louis S.; Iyer, Nathan; et al.  
 CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27599, USA  
 SOURCE: Journal of Medicinal Chemistry (1991), 34(4), 1408-14  
 CODEN: JMCMAR; ISSN: 0022-2623  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 114:185901  
 GI

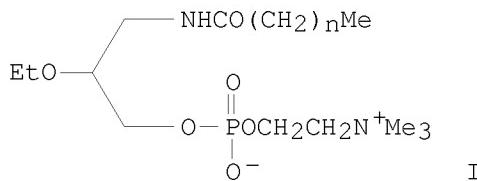


AB Combinations of an amidoalkylphosphocholine, C17H35CONHCH2CH(OEt)CH2OP(O)(O-)OCH2CH2N+Me3, and AZT were found to cause an apparent synergistic action in suppressing infectious HIV-1 replication. In addition, alkylamido, alkyloxy, and alkylthio ether lipids were chemically linked to anti-HIV-1 nucleosides (AZT and DDI) through phosphate and phosphonate linkages. These conjugates show promising in vitro anti-HIV-1 activity. Also, the conjugates have a 5-10-fold reduction in cell cytotoxicity compared to AZT alone. The most active compound, an alkylamido ether lipid-AZT conjugate, I was found to have a differential selectivity of 1793 in a syncytial plaque assay. In comparison, AZT alone has a value of 1281.

OS.CITING REF COUNT: 37 THERE ARE 37 CAPLUS RECORDS THAT CITE THIS RECORD (38 CITINGS)

L5 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1991:185881 CAPLUS  
 DOCUMENT NUMBER: 114:185881  
 ORIGINAL REFERENCE NO.: 114:31411a,31414a  
 TITLE: In vitro evaluation of phosphocholine and quaternary ammonium containing lipids as novel anti-HIV agents  
 AUTHOR(S): Meyer, Karen L.; Marasco, Canio J., Jr.; Morris-Natschke, Susan L.; Ishaq, Khalid S. ;

CORPORATE SOURCE: Piantadosi, Claude; Kucera, Louis S.  
 Sch. Pharm., Univ. North Carolina, Chapel Hill, NC,  
 27599, USA  
 SOURCE: Journal of Medicinal Chemistry (1991), 34(4), 1377-83  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CODEN: JMCMAR; ISSN: 0022-2623  
 GI  
 CASREACT 114:185881



**AB** A series of synthetic lipids containing a two- or three-carbon backbone substituted with a thio, oxy, or amidoalkyl functionality and either a phosphocholine or quaternary ammonium moiety were evaluated as potential anti-HIV-1 agents. Several analogs were identified as possessing activity with the most promising compound being rac-3-octadecanamido-2-ethoxypropylphosphocholine (I). I exhibited an IC<sub>50</sub> for the inhibition of plaque formation of 0.16 μM which was 84-fold lower than the IC<sub>50</sub> value determined for CEM-SS cell growth inhibition. Initial mechanistic studies have indicated that these compds., unlike AZT, are not reverse transcriptase (RT) inhibitors, but instead appear to inhibit a late step in HIV replication involving virus assembly and infectious virus production. Since these lipids are acting via a different mechanism they represent an alternative approach to the chemotherapeutic treatment of AIDS as well as candidates for combination therapy with AZT.

OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS RECORD (17 CITINGS)

L5 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1990:470710 CAPLUS  
 DOCUMENT NUMBER: 113:70710  
 ORIGINAL REFERENCE NO.: 113:11741a,11744a  
 TITLE: Novel membrane-interactive ether lipid analogs that inhibit infectious HIV-1 production and induce defective virus formation  
 AUTHOR(S): Kucera, Louis S.; Iyer, Nathan; Leake, Eva; Raben, Adam; Modest, Edward J.; Daniel, Larry W.; Piantadosi, Claude  
 CORPORATE SOURCE: Bowman Gray Sch. Med., Wake Forest Univ., Winston-Salem, NC, 27103, USA  
 SOURCE: AIDS Research and Human Retroviruses (1990), 6(4), 491-501  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

**AB** A new class of membrane-active ether lipid (EL) analogs of platelet-activating factor were studied for in vitro anti-HIV-1 activity. Human T-cell (CEM-ss) monolayers or suspension cultures were used to determine effects of structural modifications of Type A phosphorus-containing and Type B nonphosphorus EL analogs on (a) the inhibitory concn.50 (IC<sub>50</sub>) for HIV-1 syncytial plaque formation and cell growth, and, (b) virus budding at the cell plasma membrane. Results indicate that representative

Type A and Type B EL inhibit HIV-1 but not herpes simplex virus type 2 plaque formation when added before or up to 2 days after viral infection. Anti-HIV-1 activity does not involve direct inactivation of virus infectivity. Type A EL (IC<sub>50</sub> range = 0.2-1.4 μM) with alkoxy, alkylthio, or alkyamido substitution at glycerol position 1 and ethoxy or methoxy substitution at position 2, and Type B compds. (IC<sub>50</sub> range = 0.33-0.63 μM) with an inverse choline or nitrogen heterocyclic substitution at position 3 have selective activity against HIV-1-infected T-cells. EL treatment of HIV-1-infected cells is associated with subsequent release of reverse transcriptase activity, but infectious virus production is inhibited with time after infection. Electron microscopic examination of HIV-1-infected and EL-treated cells revealed absence of detectable budding virus at the plasma membrane but presence of intracytoplasmic vacuolar virus particles. EL analogs are a novel class of agents that induce defective intracytoplasmic vacuolar HIV-1 formation in T-cells. Being membrane interactive, EL are ideally suited for combination chemotherapy with DNA-interactive anti-HIV nucleoside analogs.

OS.CITING REF COUNT: 32 THERE ARE 32 CAPLUS RECORDS THAT CITE THIS RECORD (33 CITINGS)

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FULL ESTIMATED COST	15.49	249.80
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CA SUBSCRIBER PRICE	0.00	-9.35

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S L2 OR L6

L8 108 L2 OR L7

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L9 35 L8 AND (VIRAL OR VIRUS)

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PROCESSING COMPLETED FOR L9  
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=> s 110 and (respiratory)  
L11 0 L10 AND (RESPIRATORY)

=> s 110 1-22 ibib abs  
MISSING OPERATOR L10 1-22  
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nested terms that are not separated by a logical operator.

=> d 110 1-22 ibib abs

L10 ANSWER 1 OF 22 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN  
ACCESSION NUMBER: 2004:314697 BIOSIS  
DOCUMENT NUMBER: PREV200400315490  
TITLE: Characterization of Mexican Bacillus thuringiensis strains  
toxic for lepidopteran and coleopteran larvae.  
AUTHOR(S): Tamez-Guerra, Patricia [Reprint Author]; Iracheta, Maria  
M.; Pereyra-Alferez, Benito; Galan-Wong, Luis J.;  
Gomez-Flores, Ricardo; Tamez-Guerra, Reyes S.;  
Rodriguez-Padilla, Cristina  
CORPORATE SOURCE: Fac Ciencias BiolDept Microbiol and Inmunol, UANL, AP 46-F,  
San Nicolas Garza, NL, 66451, Mexico  
patamez@uanl.mx  
SOURCE: Journal of Invertebrate Pathology, (May 2004) Vol. 86, No.  
1-2, pp. 7-18. print.  
CODEN: JIVPAZ. ISSN: 0022-2011.  
DOCUMENT TYPE: Article  
LANGUAGE: English

ENTRY DATE: Entered STN: 15 Jul 2004  
Last Updated on STN: 15 Jul 2004

AB Bacillus thuringiensis strains C-4, C-9, GM-7, and GM-10, isolated from northeast Mexico and selected for their high toxicity against lepidopteran and coleopteran pests, were characterized following United States Environmental Protection Agency (EPA)'s guidelines. Flagellar serotyping revealed that GM-7 and GM-10 belonged to serotype aizawai, whereas C-4, C-9 corresponded to the kumamotoensis serotype. GM-10 and C-9 were also shown to be the most effective against lepidoptera and coleoptera larvae, respectively. None of the tested strains produced beta-exotoxin or showed activity against mosquitoes. GM-7 and GM-10 were sensitive to R-41 and CP-51 phages. All strains synthesized crystal proteins of 130-140 kDa. PCR analysis showed that C-4, GM-7, and GM-10 strains expressed cry1 genes, and C-9 expressed cry3 and cry7/8 genes, but not cry1. However, the C-9 strain had no cross-reaction with antisera raised against Cry3A and Cry7A proteins. GM-7 and GM-10 were sensitive to R-41 and CP-51 phages. When the delta-endotoxin (crystal) from the four strains was subcutaneously injected to Balb/c mice, alone or in combination with spores, only C-4 and C-9 provoked tissue necrosis similar to that caused by the beta-exotoxin producer HD-41. Tissue necrosis was prevented with the injection of pentoxifylline, an inhibitor of tumor necrosis factor alpha (TNF-alpha) production, suggesting a role of this cytokine in the observed effect. Our results demonstrated that GM-7 and GM-10 strains are effective and suitable for control of lepidopteran pests and safe for mammals under EPA regulations. The potential of the C-9 strain for the control of several coleopteran pests, and the induction of tissue necrosis in mice by C-4 and C-9 strains, are discussed. Copyright 2004 Elsevier Inc. All rights reserved.

L10 ANSWER 2 OF 22 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2003253585 EMBASE

TITLE: Phospholipid analogs against HIV-1 infection and disease.

AUTHOR: Morris-Natschke, Susan L.; Ishaq, Khalid S.

CORPORATE SOURCE: School of Pharmacy, The University of North Carolina, Chapel Hill, NC 27599, United States.

AUTHOR: Kucera, Louis S. (correspondence)

CORPORATE SOURCE: Wake Forest Univ. School of Medicine, Dept. of Microbiology/Immunology, Medical Center Blvd., Winston-Salem, NC 27157, United States. lkucera@wfubmc.edu

SOURCE: Current Pharmaceutical Design, (2003) Vol. 9, No. 18, pp. 1441-1451.  
Refs: 46  
ISSN: 1381-6128 CODEN: CPDEFP

COUNTRY: Netherlands

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 037 Drug Literature Index  
038 Adverse Reactions Titles  
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 10 Jul 2003  
Last Updated on STN: 10 Jul 2003

AB Phospholipid analogs are a new class of compounds with potent activity against HIV infection when used alone or conjugated with other therapeutic agents. When conjugated to the nucleoside analog AZT, the resulting phospholipid-AZT conjugate can double target the virus replication cycle by inhibiting the viral reverse transcriptase (by AZT) and inducing the production of defective virus particles that lack functional gp120 expression on the virus surface resulting in reduced capacity to bind to CD4+ cells and inhibition

of infected cell-cell fusion (by phospholipid). Of great interest are data indicating that selected phospholipids are active against drug resistant variants, a current major problem in treating HIV/AIDS and controlling the epidemic occurring in various parts of the world. The purpose of this review is to provide current information on the design and synthesis of various types of phospholipids and phospholipid conjugates, in-vitro and in-vivo antiviral activity, tissue distribution, intracellular metabolism, and mechanism of action. The future development of this novel class of compounds offers an exciting approach for reducing the toxicity and enhancing the distribution of therapeutic drugs to the lymphatics and central nervous system and suppressing the emergence of drug resistant variants of HIV.

L10 ANSWER 3 OF 22 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN  
ACCESSION NUMBER: 2000:398761 BIOSIS  
DOCUMENT NUMBER: PREV200000398761  
TITLE: Destroying bacterial bio-warfare agents: Growth, stability and genetic characterization of bacteriophage CP-51, lytic on *Bacillus anthracis* and *B. cereus*.  
AUTHOR(S): Walter, M. H. [Reprint author]; Baker, D. D. [Reprint author]; Timmerman, S. L. [Reprint author]  
CORPORATE SOURCE: University of Northern Iowa, Cedar Falls, IA, USA  
SOURCE: Abstracts of the General Meeting of the American Society for Microbiology, (2000) Vol. 100, pp. 448. print.  
Meeting Info.: 100th General Meeting of the American Society for Microbiology. Los Angeles, California, USA. May 21-25, 2000. American Society for Microbiology.  
ISSN: 1060-2011.  
DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
Conference; (Meeting Poster)  
LANGUAGE: English  
ENTRY DATE: Entered STN: 20 Sep 2000  
Last Updated on STN: 8 Jan 2002

L10 ANSWER 4 OF 22 MEDLINE on STN  
ACCESSION NUMBER: 1999419076 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 10488134  
TITLE: The anti-HIV pseudopeptide HB-19 forms a complex with the cell-surface-expressed nucleolin independent of heparan sulfate proteoglycans.  
AUTHOR: Nisole S; Krust B; Callebaut C; Guichard G; Muller S; Briand J P; Hovanessian A G  
CORPORATE SOURCE: Unite de Virologie et Immunologie Cellulaire, URA 1930 CNRS, Institut Pasteur, 28 rue du Dr Roux, 75724 Paris Cedex 15, France.  
SOURCE: The Journal of biological chemistry, (1999 Sep 24) Vol. 274, No. 39, pp. 27875-84.  
Journal code: 2985121R. ISSN: 0021-9258. L-ISSN: 0021-9258.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
(RESEARCH SUPPORT, NON-U.S. GOV'T)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals; AIDS  
ENTRY MONTH: 199911  
ENTRY DATE: Entered STN: 11 Jan 2000  
Last Updated on STN: 11 Jan 2000  
Entered Medline: 4 Nov 1999  
AB The HB-19 pseudopeptide 5[Kpsi(CH(2)N)PR]-TASP, psi(CH(2)N) for reduced peptide bond, is a specific inhibitor of human immunodeficiency virus (HIV) infection in different CD4(+) cell lines and in primary T-lymphocytes and macrophages. Here, by using an experimental

CD4(+) cell model to monitor HIV entry and infection, we demonstrate that HB-19 binds the cell surface and inhibits attachment of HIV particles to permissive cells. At concentrations that inhibit HIV attachment, HB-19 binds cells irreversibly, becomes complexed with the cell-surface-expressed nucleolin, and eventually results in its degradation. Accordingly, by confocal immunofluorescence microscopy, we demonstrate the drastic reduction of the cell-surface-expressed nucleolin following treatment of cells with HB-19. HIV particles can prevent the binding of HB-19 to cells and inhibit complex formation with nucleolin. Such a competition between viral particles and HB-19 is consistent with the implication of nucleolin in the process of HIV attachment to target cells. We show that another inhibitor of HIV infection, the fibroblast growth factor-2 (FGF-2) that uses cell-surface-expressed heparan sulfate proteoglycans as low affinity receptors, binds cells and blocks attachment of HIV to permissive cells. FGF-2 does not prevent the binding of HB-19 to cells and to nucleolin, and similarly HB-19 has no apparent effect on the binding of FGF-2 to the cell surface. The lack of competition between these two anti-HIV agents rules out the potential involvement of heparan sulfate proteoglycans in the mechanism of anti-HIV effect of HB-19, thus pointing out that nucleolin is its main target.

L10 ANSWER 5 OF 22 MEDLINE on STN DUPLICATE 1  
ACCESSION NUMBER: 1999092546 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 9875387  
TITLE: In vitro evaluation and characterization of newly designed alkylamidophospholipid analogues as anti-human immunodeficiency virus type 1 agents.  
AUTHOR: Kucera L S; Iyer N; Morris-Natschke S L; Chen S Y; Gumus F; Ishaq K; Herrmann D B  
CORPORATE SOURCE: Wake Forest University School of Medicine, Winston-Salem, N.C., USA.  
SOURCE: Antiviral chemistry & chemotherapy, (1998 Mar) Vol. 9, No. 2, pp. 157-65.  
Journal code: 9009212. ISSN: 0956-3202. L-ISSN: 0956-3202.  
PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals; AIDS  
ENTRY MONTH: 199902  
ENTRY DATE: Entered STN: 16 Feb 1999  
Last Updated on STN: 16 Feb 1999  
Entered Medline: 2 Feb 1999

AB Our laboratories first reported two novel classes of complex synthetic lipids, including alkylamidophosphocholines (PC lipid; CP-51) and alkylamidophosphate ester-linked lipid-AZT conjugates (lipid-AZT conjugates; CP-92), with selective and potent activity against human immunodeficiency virus type 1 (HIV-1). To extend these observations, we synthesized additional PC lipids and lipid-AZT conjugates (INK and INK-AZT conjugate) to evaluate their structure-activity relationships by testing for selectivity against infectious wild-type (wt) and drug-resistant HIV-1 replication, virus fusogenic activity and toxicity for mouse bone marrow cells. PC lipid compounds with medium chain lengths at positions 1 and 2 gave an improved selective index (SI). INK-3, with 12 and 8 carbons and INK-15, with 10 and 12 carbons were among the most selective when evaluated in CEM-SS cells. INK-14, a lipid-AZT conjugate where AZT replaced the choline in PC lipid INK-3, gave the highest SI of > 1250 against both infectious wt HIV-1 replication in CEM-SS cells and a clinical isolate in peripheral blood leukocytes. Notably, the PC lipid compounds INK-3 and INK-15, but not the lipid-AZT conjugate INK-14, were potent inhibitors of matched pairs of AZT-sensitive and AZT-resistant HIV-1 clinical isolates. INK-3 also inhibited

replication of HIV-2 and TIBO-resistant HIV-1, and inhibited HIV-1-mediated fusogenic activity by 78, 41 and 9% in a dose-dependent manner. The TC50 for mouse bone marrow cells was > 100 micrograms/ml for INK-3 compared to 9.15-14.17 micrograms/ml for CP-51 and 0.142-0.259 microgram/ml for AZT. These data suggest that optimum PC lipid compounds are significantly less toxic than AZT and have high potential as novel therapeutic agents for AIDS.

L10 ANSWER 6 OF 22 MEDLINE on STN DUPLICATE 2  
ACCESSION NUMBER: 1996078231 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 7576930  
TITLE: Membrane-interactive phospholipids inhibit HIV type 1-induced cell fusion and surface gp160/gp120 binding to monoclonal antibody.  
AUTHOR: Krugner-Higby L; Goff D; Edwards T; Iyer N; Neufeld J; Kute T; Morris-Natschke S; Ishaq K; Piantadosi C; Kucera L S  
CORPORATE SOURCE: Department of Comparative Medicine, Wake Forest University Medical Center, Winston-Salem, North Carolina 27157-1064, USA.  
CONTRACT NUMBER: CA 12197 (United States NCI NIH HHS)  
CA 41314 (United States NCI NIH HHS)  
CA 42216 (United States NCI NIH HHS)  
+  
SOURCE: AIDS research and human retroviruses, (1995 Jun) Vol. 11, No. 6, pp. 705-12.  
Journal code: 8709376. ISSN: 0889-2229. L-ISSN: 0889-2229.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals; AIDS  
ENTRY MONTH: 199512  
ENTRY DATE: Entered STN: 24 Jan 1996  
Last Updated on STN: 6 Feb 1998  
Entered Medline: 7 Dec 1995  
AB Membrane-interactive phospholipids (PLs), previously evaluated for activity against HIV-1 in vitro, are known to affect late steps in viral replication. Studies were done to determine the effects of PL analogs on post-translational processing of HIV-1 proteins, binding of viral surface gp160/gp120 to CD4 receptor, and HIV-1-induced cell fusion. Results of this investigation indicated that PL alone (1-octadecanamido-2-ethoxypropyl-rac-3-phosphocholine, CP-51) and PL-AZT conjugate (1-octadecanamido-2-ethoxypropyl-rac-3-phospho-3'-azido-3'-deoxythymidine, CP-92) have no effect on HIV-1-induced syntheses or processing of gp160/gp120, pr51, p24, or p17 (including myristoylation) in infected cells. Progeny HIV-1 particles made in CP-92-treated H9IIIB cells contained gp120, pr51, and p24; however, these virus particles had reduced capacity to bind to CD4+ cells. Both CP-51 and CP-92 inhibited syncytium (cell fusion) formation between treated HIV-1-infected cells and uninfected CD4+ cells, and, they reduced HIV-1 gp160/gp120 binding to CD4+ cells and monoclonal antibody. These results suggest that anti-HIV-1 activity of PL compounds involves alteration of cell surface membranes and viral envelopes. Phospholipid compounds are a novel class of membrane interactive compounds with potential use in blocking the spread of HIV-1 infection and pathogenesis in AIDS.

L10 ANSWER 7 OF 22 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights reserved on STN  
ACCESSION NUMBER: 0008376850 EMBASE  
COPYRIGHT: MEDLINE® is the source for the citation and abstract of this record.

TITLE: Comparative inhibitory action of 4 standard bacteriophages on the larvicidal activity of certain mosquito pathogenic bacteria against *Culex pipiens* larvae..

AUTHOR: Ali, S.M. (correspondence); Saleh, M.B.; Merdan, A.I.

CORPORATE SOURCE: Department of Entomology, Faculty of Science, Ain Shams University, Cairo, Egypt..

SOURCE: Journal of the Egyptian Society of Parasitology, (Aug 1993) Vol. 23, No. 2, pp. 341-348.

ISSN: 0253-5890

COUNTRY: Egypt

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: MEDLINE

LANGUAGE: English

ENTRY DATE: Entered STN: Mar 2010  
Last Updated on STN: Mar 2010

AB Four bacteriophage (CP-51, CP-54, Yousten-4 and Yousten-14) were assayed against 7 entemopathogenic bacterial strains. The two CP ones, indicating variability of the host range of the tested phages which was suggested to be related to the environmental characteristics of the tested strains. On testing the susceptibility of 5 bacterial strains to the phage Yousten-4 at different cultural ages, a correlation was found between incubation time and level of bacterial susceptibility to the tested phage. This observation was explained to be due to the number of vegetative cells and/or sporulation.

L10 ANSWER 8 OF 22 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN  
ACCESSION NUMBER: 1993:3906 BIOSIS  
DOCUMENT NUMBER: PREV199395003906

TITLE: Isolation and characteristics of phage-resistant mutants of *Bacillus thuringiensis* var. *thuringiensis*.

AUTHOR(S): Koroleva, Yu. V.; Grigor'eva, T. M.; Azizbekyan, R. R.

CORPORATE SOURCE: All-Union Res. Inst. Genet. Sel. Ind. Microorg., Moscow, Russia

SOURCE: Biotekhnologiya, (1992) Vol. 0, No. 2, pp. 3-5.  
CODEN: BTKNEZ. ISSN: 0234-2758.

DOCUMENT TYPE: Article  
LANGUAGE: Russian  
ENTRY DATE: Entered STN: 10 Dec 1992  
Last Updated on STN: 10 Dec 1992

AB 34 phage-resistant mutants of the strain of *B. thuringiensis* H-1-177-131-producing bacterial insecticide - bitoxypbacilline were isolated with the use of Tb-2-group of *Bacillus thuringiensis* phages. Phage-resistant mutants limited the growth of phages and maintained the main technological parameters - the level of exotoxin and endotoxin synthesis, spore titration. It was shown that the decreasing of the efficiency of phages development on phage-resistant mutants was not determined with the changes in their phage-receptor apparatus. On the bases of the analysis of the integral parameter-approximate harvest of the phage it was supposed that the phage-resistant might be determined with the internal mechanisms of phages development mechanisms-decreasing of the phages harvest. It was shown that phage-resistant strains might be used as the recipients for transduction, though it fully limited the lytic development of the transduction bacteriophage. The transduction bacteriophage CP-51 in phage resistant organisms helped to carry out the transduction of pBC-16-plasmid, determining tetracycline-resistance.

L10 ANSWER 9 OF 22 MEDLINE on STN  
ACCESSION NUMBER: 1991202492 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 2016713

TITLE: In vitro evaluation of phosphocholine and quaternary ammonium containing lipids as novel anti-HIV agents.

AUTHOR: Meyer K L; Marasco C J Jr; Morris-Natschke S L; Ishaq K S;  
Piantadosi C

CORPORATE SOURCE: University of North Carolina, School of Pharmacy, Division  
of Medicinal Chemistry and Natural Products, Chapel Hill  
27599.

CONTRACT NUMBER: CA 12197 (United States NCI NIH HHS)  
CA 42216 (United States NCI NIH HHS)  
RR 05404 (United States NCRR NIH HHS)

SOURCE: Journal of medicinal chemistry, (1991 Apr) Vol. 34, No. 4,  
pp. 1377-83.  
Journal code: 9716531. ISSN: 0022-2623. L-ISSN: 0022-2623.

PUB. COUNTRY: United States

DOCUMENT TYPE: (COMPARATIVE STUDY)  
(JOURNAL ARTICLE)  
(RESEARCH SUPPORT, NON-U.S. GOV'T)  
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

LANGUAGE: English

FILE SEGMENT: Priority Journals; AIDS

ENTRY MONTH: 199105

ENTRY DATE: Entered STN: 7 Jun 1991  
Last Updated on STN: 3 Feb 1997  
Entered Medline: 21 May 1991

AB A series of synthetic lipids containing a two- or three-carbon backbone substituted with a thio, oxy, or amidoalkyl functionality and either a phosphocholine or quaternary ammonium moiety was evaluated as potential anti-HIV-1 agents. Several analogues were identified as possessing activity with the most promising compound being rac-3-octadecanamido-2-ethoxypropylphosphocholine (8). Compound 8 exhibited an IC<sub>50</sub> for the inhibition of plaque formation of 0.16 microM which was 84-fold lower than the IC<sub>50</sub> value determined for CEM-SS cell growth inhibition. Initial mechanistic studies have indicated that these compounds, unlike AZT, are not reverse transcriptase (RT) inhibitors, but instead appear to inhibit a late step in HIV replication involving virus assembly and infectious virus production. Since these lipids are acting via a different mechanism, they represent an alternative approach to the chemotherapeutic treatment of AIDS as well as candidates for combination therapy with AZT.

L10 ANSWER 10 OF 22 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on  
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ACCESSION NUMBER: 1991:476640 BIOSIS

DOCUMENT NUMBER: PREV199192110400; BA92:110400

TITLE: THE EFFECTS OF CERTAIN PHAGES OF BACILLUS-SPP ON THE  
LARVICIDAL POTENCY OF BACILLUS-THURINGIENSIS AND  
BACILLUS-SPHAERICUS.

AUTHOR(S): HUSSEIN M E [Reprint author]; MERDAN A; RAZIK N A A; MORSI  
S A; SALEH M B

CORPORATE SOURCE: LAB GENERAL VIROL, FAC SCI, AL-AZHAR UNIVERSITY, MADINET  
NASR, CAIRO, EGYPT

SOURCE: Journal of Applied Entomology, (1991) Vol. 112, No. 2, pp.  
176-180.  
ISSN: 0931-2048.

DOCUMENT TYPE: Article

FILE SEGMENT: BA

LANGUAGE: ENGLISH

ENTRY DATE: Entered STN: 26 Oct 1991  
Last Updated on STN: 26 Oct 1991

AB The phages: CP-51 and CP-54 of *Bacillus cereus*, together with P-4 and P-14 of *B. sphaericus* were tested against *B. thuringiensis* and *B. sphaericus* strains. P-4 and P-14 were more different in their host range than the other two phages. Results of the bioassay against *Culex pipiens* larvae presented the inhibition in the larvicidal

effects of phage-infected bacteria. Such inhibitory action varied according to the phage and the entomopathogenic bacterial strains.

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ACCESSION NUMBER: 1984:266392 BIOSIS

DOCUMENT NUMBER: PREV198478002872; BA78:2872

TITLE: INTERSPECIES TRANSDUCTION OF PLASMIDS AMONG BACILLUS-ANTHRACIS BACILLUS-CEREUS AND BACILLUS-THURINGIENSIS.

AUTHOR(S): RUHFEL R E [Reprint author]; ROBILLARD N J; THORNE C B

CORPORATE SOURCE: DEP MICROBIOL, UNIV MASS, AMHERST, MASS 01003, USA

SOURCE: Journal of Bacteriology, (1984) Vol. 157, No. 3, pp. 708-711.

CODEN: JOBAAY. ISSN: 0021-9193.

DOCUMENT TYPE: Article

FILE SEGMENT: BA

LANGUAGE: ENGLISH

AB Bacteriophage CP-51, a generalized transducing phage for *B. anthracis*, *B. cereus* and *B. thuringiensis*, mediates transduction of plasmid DNA. *B. cereus* GP7 harbors the 2.8-megadalton multicopy tetracycline resistance plasmid, pBC16. *B. thuringiensis* 4D11A carries pC194, the 1.8-megadalton multicopy chloramphenicol resistance plasmid. When phage CP-51 was propagated on these strains, it transferred the plasmid-encoded antibiotic resistances to the nonvirulent Weybridge (Sterne) strain of *B. anthracis* to *B. cereus* 569, and to strains of several *B. thuringiensis* subspecies. The frequency of transfer was as high as 10<sup>-5</sup> transductants per plaque-forming unit. Tetracycline-resistant and chloramphenicol-resistant transductants contained newly acquired plasmid DNA having the same MW as that contained in the donor strain. Antibiotic-resistant transductants derived from any of the 3 spp. were effective donors of plasmids to recipients from all 3 spp.

L10 ANSWER 12 OF 22 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN

ACCESSION NUMBER: 1978:233208 BIOSIS

DOCUMENT NUMBER: PREV197866045705; BA66:45705

TITLE: TRANSDUCTION IN BACILLUS-THURINGIENSIS.

AUTHOR(S): THORNE C B [Reprint author]

CORPORATE SOURCE: DEP MICROBIOL, UNIV MASS, AMHERST, MASS 01003, USA

SOURCE: Applied and Environmental Microbiology, (1978) Vol. 35, No. 6, pp. 1109-1115.

CODEN: AEMIDF. ISSN: 0099-2240.

DOCUMENT TYPE: Article

FILE SEGMENT: BA

LANGUAGE: ENGLISH

AB Bacteriophage CP-51, originally reported as a generalized transducing phage for *B. cereus* and *B. anthracis*, carried out generalized transduction in several strains of *B. thuringiensis*. A newly isolated phage, CP-54, which has a broader host range than CP-51, also mediates generalized transduction in *B. thuringiensis*. CP-51 and CP-54 are similar in size and morphology and are related serologically, but they are not identical. CP-54 is more cold labile than CP-51, and, as with CP-51, its stability both at 0° and 15° C is enhanced by the presence of 0.02 M Mg<sup>2+</sup>. Some examples of cotransduction of linked markers in *B. thuringiensis* are presented, demonstrating the feasibility of chromosomal mapping in this organism. The rare occurrence of cross-transduction among strains of *B. thuringiensis* is probably a reflection of nonhomology rather than restriction, since phage itself did not appear to be restricted when grown on a particular host and assayed

with other hosts as indicator.

L10 ANSWER 13 OF 22 MEDLINE on STN DUPLICATE 3  
ACCESSION NUMBER: 1976162733 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 816441  
TITLE: Response of *Bacillus thuringiensis* to bacteriophage CP-51.  
AUTHOR: Van Tassel R L; Yousten A A  
SOURCE: Canadian journal of microbiology, (1976 Apr) Vol. 22, No. 4, pp. 583-6.  
JOURNAL CODE: 0372707. ISSN: 0008-4166. L-ISSN: 0008-4166.  
PUB. COUNTRY: Canada  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 197607  
ENTRY DATE: Entered STN: 13 Mar 1990  
Last Updated on STN: 13 Mar 1990  
Entered Medline: 6 Jul 1976  
AB Bacteriophage CP-51, a transducing phage of *Bacillus cereus* was able to replicate on all eight varieties of *Bacillus thuringiensis* tested. Three general plaque types were observed on each strain although one type predominated on each strain. The plaque size was uniform for each strain regardless of plaque type. The bacterial strain used as source of the phage had no effect on plaque type or size found on any host strain. CP-51 was stable in infected spores of *B. thuringiensis* var. *kurstaki* for at least 305 days even though most of the spores had lost refractivity. Free phage paricles produced in *B. thuringiensis* were stable for at least 10 days in broth at 14 degrees C but were very unstable at 4 degrees C.

L10 ANSWER 14 OF 22 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN  
ACCESSION NUMBER: 1976:82407 BIOSIS  
DOCUMENT NUMBER: PREV197612082407; BR12:82407  
TITLE: RESPONSES OF BACILLUS-THURINGIENSIS TO BACTERIO PHAGE CP-51.  
AUTHOR(S): VAN TASSELL R L; YOUSTEN A A  
SOURCE: Virginia Journal of Science, (1975) Vol. 26, No. 2, pp. 97.  
CODEN: VJSCL. ISSN: 0042-658X.  
DOCUMENT TYPE: Article  
FILE SEGMENT: BR  
LANGUAGE: Unavailable

L10 ANSWER 15 OF 22 MEDLINE on STN DUPLICATE 4  
ACCESSION NUMBER: 1975018003 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 4138063  
TITLE: Cold lability of *Bacillus cereus* bacteriophage CP-51.  
AUTHOR: Thorne C B; Holt S C  
SOURCE: Journal of virology, (1974 Oct) Vol. 14, No. 4, pp. 1008-12.  
JOURNAL CODE: 0113724. ISSN: 0022-538X. L-ISSN: 0022-538X.  
REPORT NO.: NLM-PMC355608.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 197501  
ENTRY DATE: Entered STN: 10 Mar 1990  
Last Updated on STN: 3 Feb 1997  
Entered Medline: 8 Jan 1975

AB Phage CP-51 was rapidly inactivated when stored at the usual refrigerator temperatures (2 to 4 C) and even more rapidly when exposed to 0 C. The loss in viability resulting from exposure to cold appeared to correlate with the increase in number of phage particles having contracted tails. High concentrations (0.01 M) of Mg(2+), Ca(2+), or Mn(2+) stabilized the phage considerably, but even in the presence of these divalent cations, it was much less stable at 0 C than at 15 C.

L10 ANSWER 16 OF 22 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN

ACCESSION NUMBER: 1973:90942 BIOSIS  
DOCUMENT NUMBER: PREV197309090942; BR09:90942  
TITLE: TRANSCRIPTION OF TRAPPED PHAGE DNA IN OUTGROWING SPORES.  
AUTHOR(S): COHEN A  
SOURCE: Israel Journal of Medical Sciences, (1973) Vol. 9, No. 5, pp. 693.  
CODEN: IJMDAI. ISSN: 0021-2180.  
DOCUMENT TYPE: Article  
FILE SEGMENT: BR  
LANGUAGE: Unavailable

L10 ANSWER 17 OF 22 MEDLINE on STN DUPLICATE 5  
ACCESSION NUMBER: 1973188353 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 4196633  
TITLE: Outgrowth of *Bacillus cereus* spores harboring bacteriophage CP-51 DNA. I. Initiation of bacteriophage development.  
AUTHOR: Cohen A; Ben-Ze'ev H; Yashouv J  
SOURCE: Journal of virology, (1973 May) Vol. 11, No. 5, pp. 648-54.  
Journal code: 0113724. ISSN: 0022-538X. L-ISSN: 0022-538X.  
Report No.: NLM-PMC355160.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 197308  
ENTRY DATE: Entered STN: 10 Mar 1990  
Last Updated on STN: 10 Mar 1990  
Entered Medline: 3 Aug 1973

AB Time of initiation of bacteriophage CP-51 RNA synthesis, inhibition of host DNA synthesis, initiation of CP-51 DNA synthesis, and release of phage was determined in infected *Bacillus cereus* cells and outgrowing spores harboring phage DNA. The development of phage in outgrowing spores is initiated 45 min after induction of spore germination and then proceeds at a rate similar to that observed in infected cells. Although spore RNA synthesis is inhibited by the presence of chloramphenicol or puromycin during germination, these antibiotics do not inhibit initiation of phage DNA transcription in outgrowing spores.

L10 ANSWER 18 OF 22 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN

ACCESSION NUMBER: 1972:93268 BIOSIS  
DOCUMENT NUMBER: PREV197208093268; BR08:93268  
TITLE: A STUDY OF TRANSDUCTION IN BACILLUS-CEREUS AND A CHARACTERIZATION OF 2 TRANSDUCING BACTERIO PHAGES FOR THIS ORGANISM.  
AUTHOR(S): YELTON D B  
SOURCE: Dissertation Abstracts International B Sciences and Engineering, (1971) Vol. 32, No. 3, pp. 1732-B.  
CODEN: DABBBA. ISSN: 0419-4217.  
DOCUMENT TYPE: Article

FILE SEGMENT: BR  
LANGUAGE: Unavailable

L10 ANSWER 19 OF 22 MEDLINE on STN DUPLICATE 6  
ACCESSION NUMBER: 1972031173 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 5000543  
TITLE: Comparison of *Bacillus cereus* bacteriophages CP-51 and CP-53.  
AUTHOR: Yelton D B; Thorne C B  
SOURCE: *Journal of virology*, (1971 Aug) Vol. 8, No. 2, pp. 242-53.  
Journal code: 0113724. ISSN: 0022-538X. L-ISSN: 0022-538X.  
Report No.: NLM-PMC356236.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 197201  
ENTRY DATE: Entered STN: 10 Mar 1990  
Last Updated on STN: 3 Feb 1997  
Entered Medline: 10 Jan 1972

AB Transducing bacteriophages CP-51 and CP-53 were compared. Unlike CP-51, CP-53 appeared to be a lysogenizing phage. CP-51 gave greater frequencies of co-transduction for linked markers than did CP-53. CP-51 was found to be a larger phage which carried more deoxyribonucleic acid (DNA) than CP-53. CP-51 DNA contained about 43% guanine plus cytosine and in addition contained 5-hydroxymethyluracil in place of thymine. CP-53 DNA contained no unusual bases; its guanine plus cytosine content was 37%.

L10 ANSWER 20 OF 22 MEDLINE on STN  
ACCESSION NUMBER: 1970202719 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 4986764  
TITLE: Transduction in *Bacillus cereus* by each of two bacteriophages.  
AUTHOR: Yelton D B; Thorne C B  
SOURCE: *Journal of bacteriology*, (1970 May) Vol. 102, No. 2, pp. 573-9.  
Journal code: 2985120R. ISSN: 0021-9193. L-ISSN: 0021-9193.  
Report No.: NLM-PMC247587.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 197007  
ENTRY DATE: Entered STN: 1 Jan 1990  
Last Updated on STN: 1 Jan 1990  
Entered Medline: 23 Jul 1970

AB The ability of phage CP-51 to mediate transduction both homologously and heterologously in some of its hosts was investigated. CP-51 was shown to transduce *Bacillus cereus* strains 6464, 9139, and T in addition to 569 which was reported earlier from this laboratory. Furthermore, CP-51 grown on *B. thuringiensis* was shown to transduce some mutants of *B. cereus*. During this investigation, a second transducing phage for *B. cereus* 569 was isolated from lysates of phage CP-51 grown on *B. cereus* 6464. This phage, designated CP-53, is carried by wild-type strain 6464 possibly as prophage. All auxotrophic mutants of *B. cereus* 569 tested, those requiring tryptophan, histidine, methionine, and leucine, were transduced to prototrophy by CP-53. Electron micrographs of the two phages revealed that CP-51 has a tail core surrounded by a contractile sheath and CP-53 has a long flexible tail

without a contractile sheath. CP-53 is stable in the cold, whereas CP-51 is rapidly inactivated at 4 C.

L10 ANSWER 21 OF 22 MEDLINE on STN DUPLICATE 7  
ACCESSION NUMBER: 1969054367 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 4972780  
TITLE: Transducing bacteriophage for *Bacillus cereus*.  
AUTHOR: Thorne C B  
SOURCE: *Journal of virology*, (1968 Jul) Vol. 2, No. 7, pp. 657-62.  
Journal code: 0113724. ISSN: 0022-538X. L-ISSN: 0022-538X.  
Report No.: NLM-PMC375670.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 196901  
ENTRY DATE: Entered STN: 1 Jan 1990  
Last Updated on STN: 1 Jan 1990  
Entered Medline: 25 Jan 1969  
AB A phage, designated CP-51, that carries out generalized transduction in *Bacillus cereus* 569 was isolated from soil. All auxotrophic mutants tested, those requiring tryptophan, histidine, leucine, isoleucine, methionine, or phenylalanine, were transduced to prototrophy. The phage was extremely unstable when stored at 2 to 4 C, but stability was enhanced by storage at higher temperatures. The optimal temperature of those tested for maintenance of plaque-forming units was 15 C.

L10 ANSWER 22 OF 22 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN  
ACCESSION NUMBER: 1969:38886 BIOSIS  
DOCUMENT NUMBER: PREV196905038886; BR05:38886  
TITLE: TRANSDUCTION IN BACILLUS-CEREUS AND BACILLUS-ANTHRACIS PHAGE CP-51.  
AUTHOR(S): THORNE C B  
SOURCE: *Bacteriological Reviews*, (1968) Vol. 32, No. 4 PT 1, pp. 358-361.  
CODEN: BAREA8. ISSN: 0005-3678.  
DOCUMENT TYPE: Article  
FILE SEGMENT: BR  
LANGUAGE: Unavailable

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L4 11 S L3 AND (VIRAL OR VIRUS)  
L5 11 DUP REM L4 (0 DUPLICATES REMOVED)

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FILE 'REGISTRY' ENTERED AT 16:12:03 ON 11 AUG 2010

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L7 108 S L6  
L8 108 S L2 OR L7  
L9 35 S L8 AND (VIRAL OR VIRUS)  
L10 22 DUP REM L9 (13 DUPLICATES REMOVED)  
L11 0 S L10 AND (RESPIRATORY)

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